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Subject: Food Web / BSAF Spreadsheet
Date: 06/19/2008 09:34 AM
Attachments: [PH PCB BSAF 2.xls](#)

Hi,

I forgot to attach Mike's analysis of food web versus BSAF performance for smallmouth bass and PCBs with my food web model comments. On this note, my message may have gotten a bit lost in yesterday's meeting. I think the BSAF analysis shows the concentrations (at least in bass tissue) are strongly correlated with sediment and the relationship is quite constant across the site (with the exception of RM 2-3, which I would expect due to the mult channel and tidal influence that could increase re-suspension and bioavailability esp in light of the OSM source). The BSAF does not consider water explicitly, any differences in observed versus predicted tissue would be reflective in the BSAF relationship. Since this is constant, this shows that variability in water concentrations is not the driver in predicting tissue concentrations (it is sediment), which we already suspect for benthic driven fish. I think we can conclude (and so have others) that for fish with strong ties to sediment as a dietary pathway sediment is the driver and the best predictor of tissue. Mike's spreadsheets also show that a BSAF of 4 is about right, and this is the value we used in our bioaccumulation guidance. I think his point yesterday was, that in knowing this, we can pick up our guidance and pull out the back-calculated risk based PRGs. For the food web model, I think it is more important to get the water contribution correct to calibrate the model and to ensure we are predicting conc. with confidence. However, once we have the agreed upon model, I don't think water concentration needs to be considered for risk based PRGs. If you want to consider background, we can compare site sediment to upstream sediment.

-Jennifer

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